8670	8680	8690	8700	8710
CACCAGGGCC	AGGGGTCAGA	TATCCACTGA	CCTTTGGATG	GTGCTACAAG
8720	8730	8740	8750	8760
CTAGTACCAG	TTGAGCCAGA	TAAGGTAGAA	GAGGCCAATA	AAGGAGAGAA
8770	8780	8790	8800	8810
CACCAGCTTG	TTACACCCTG	TGAGCCTGCA	TGGAATGGAT	GACCCTGAGA
8820	8830	8840	8850	8860
GAGAAGTGTT	AGAGTGGAGG	TTTGACAGCC	GCCTAGCATT	TCATCACGTG
8870	8880	8890	8900	8910
GCCCGAGAGC	TGCATCCGGA	GTACTTCAAG	AACTGCTGAC	ATCGAGCTTG
8920	8930	8940	8950	8960
CTACAAGGGA	CTTTCCGCTG	GGGACTTTCC	AGGGAGGCGT	GGCCTGGGCG
8970	8980	8990	9000	9010
GAACTGGGGA	GTGGCGAGCC	CTCAGATGCT	GCATATAAGC	AGCTGCTTTT
9020	9030	9040	9050	9060
TGCCTGTACT	GGGTCTCTCT	GGTTAGACCA	GATTTGAGCC	TGGGAGCTCT
9070	9080	9090	9097	10
CTGGCTAACT	AGGGAACCCA	CTGCTTAAGC	CTCAATA	AAGCTTGCCT
20	30	40	50	60
TGAGTGCTTC	AAGTAGTGTG	TGCCCGTCTG	TTGTGTGACT	CTGGTAACTA
70	80	90	100	110
GAGATCCCTC	AGACCCTTTT	AGTCAGTGTG	GAAAATCTCT	AGCAGTGGCG
120	130	140	150	159
CCCGAACAGG	GACTTGAAAG	CGAAAGGGAA	ACCAGAGGAG	CTCTCTCGA

16. (NEW) The nucleic acid of claim 15, wherein said nucleic acid is labeled with a label selected from the group consisting of a radioisotope, an enzyme, a fluorescent label, and a chromophore label. --

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FINNEGAN HENDERSON FARABOW GARRETT & DUNNERLLP

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## Original Claims

- A DNA fragment of LAV extending from nucleotide position 236 to nucleotide position 1759.
- 2. A DNA fragment of LAV extending from nucleotide position 1555 to nucleotide position 5086.
- 3. A DNA fragment of LAV extending from nucleotide position 5670 to nucleotide position 8132.
  - 4. A vector containing a DNA fragment according to any of claims 1 to 3.
- 5. Peptide corresponding to any of those encoded by the nucleotide sequences which extend respectively between the following positions:
  - a) from about 6095 to about 6200
  - b) from about 6260 to about 6310
  - c) from about 6390 to about 6440
  - d) from about 6485 to about 6620
  - e) from about 6860 to about 6930
  - f) from about 7535 to about 7630

6. Peptide characterized by a sequence of amino acids deducible from LAV DNA the terminal amino acids of which extend between the following positions with respect to the lysine (position 1) coded by the AAA at position 5670-5672 in the LAV DNA.

8-23 amino acids inclusive 63-78 amino acids inclusive 82-90 amino acids inclusive 97-123 amino acids inclusive 127-183 amino acids inclusive 197-201 amino acids inclusive 239-294 amino acids inclusive 300-327 amino acids inclusive 334-381 amino acids inclusive 397-424 amino acids inclusive 466-500 amino acids inclusive 510-523 amino acids inclusive 551-577 amino acids inclusive 594-603 amino acids inclusive 621-630 amino acids inclusive 657-679 amino acids inclusive 719-758 amino acids inclusive 780-803 amino acids inclusive

or any combination of these peptides.

7. Peptide corresponding to the amino acid sequences deducible from LAV DNA and the terminal amino acids of which are positioned at the positions hereafter counted from the Met at position 1 coded by the ATG sequence at nucleotide positions 260-2:

12-32 amino acids inclusive 37-46 amino acidé inclusive 49-79 amino acids inclusive 88-153 amino acids inclusive 158-165 amino acids inclusive 178-188 amino acids inclusive 200-220 amino acids inclusive 226-234 amino acids inclusive 239-264 amino acids inclusive 288-331 amino acids inclusive 352-361 amino acids inclusive 377-390 amino acids inclusive 399-432 amino acids inclusive 437-484 amino acids inclusive 492-498 amino acids inclusive

and combination of said peptides.

- 8. Diagnostic means containing any of the DNA fragments of any of claims 1 to 3.
  - 9. Diagnostic means containing any of the peptides of any of claims 4 to 6.
- 10. Vaccine compositions containing any of the peptides according to any of claims 4 to 6 in association with a pharmaceutical vehicle.